



Amoco Production Company

August 5, 1987

Utah Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180

**RECEIVED**

**AUG 7 1987**

**DIVISION OF OIL  
GAS & MINING**

Re: Mancos Mesa Unit #1 Well located in the  
SE/4 SE/4, Sec. 2, T37S, R13E,  
San Juan County, Utah

Amoco Production Company herewith submits for your approval  
an APD for the Mancos Mesa Unit #1 well located in the SE/4,  
SE/4, Section 2, T37S, R13E, San Juan, Utah.

A Special Use Lease Application was submitted to the State  
Lands and Forestry office on July 31, 1987, for our staging  
area located in the NE/4 of Section 16, T35S, R15E, San Juan  
County, Utah.

All water used for both the camp and drilling operation will  
be commercially transported from a public access located in  
Hite, Utah. Potable water will be provided by the Utah State  
Parks at Hite Marina.

An alternate water source would be located at the Frye Canyon  
General Store.

If you should have any questions regarding the material enclosed  
please contact Karen Gollmer at (307) 783-2234.

Thank you,

*R.M. Ramsey*  
R. M. Ramsey  
Dist Admn Supv

/kg

Encl.

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**STATE OF UTAH**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL, GAS, AND MINING**

SUBMIT IN DUPLICATE\*  
 (Other instructions on  
 reverse side)

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. Lease Designation and Serial No. <b>ML-35456</b>
b. Type of Well Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone <input type="checkbox"/>		6. If Indian, Allottee or Tribe Name 
2. Name of Operator <b>AMOCO PRODUCTION COMPANY</b>		7. Unit Agreement Name <b>Mancos Mesa Unit</b>
3. Address of Operator <b>P. O. BOX 829, EVANSTON, WYOMING 82930</b>		8. Farm or Lease Name <b>Mancos Mesa Unit</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface <b>570' FSL &amp; 1010' FEL Section 2</b>		9. Well No. <b>#1</b>
At proposed prod. zone		10. Field and Pool, or Wildcat <b>Wildcat</b>
14. Distance in miles and direction from nearest town or post office* <b>68 miles North from Section 2 to Hanksville, Utah</b>		11. Sec., T., R., M., or Blk. and Survey or Area <b>Sec. 2, T37S, R13E</b>
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) <b>570'</b>	16. No. of acres in lease	12. County or Parrish      13. State <b>San Juan      Utah</b>
17. No. of acres assigned to this well	18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.	19. Proposed depth <b>2230'</b>
20. Rotary or cable tools <b>Rotary-Air</b>	21. Elevations (Show whether DF, RT, GR, etc.) <b>5242' GR</b>	22. Approx. date work will start* <b>Approval of A.P.D.</b>
23. PROPOSED CASING AND CEMENTING PROGRAM		
Size of Hole	Size of Casing	Weight per Foot
<b>7 7/8"</b>	<b>6"</b>	<b>20#</b>
<b>5 7/8"</b>	<b>4 1/2"</b>	<b>13.5#</b>
		Setting Depth
		<b>100'</b>
		<b>1800'-2000'</b>
		Quantity of Cement
		<b>50 sx</b>
		<b>50 sx</b>

AMOCO PRODUCTION COMPANY PROPOSES TO DRILL AND  
 EVALUATE THE WHITE RIM FORMATION.

**RECEIVED**

**AUG 7 1987**

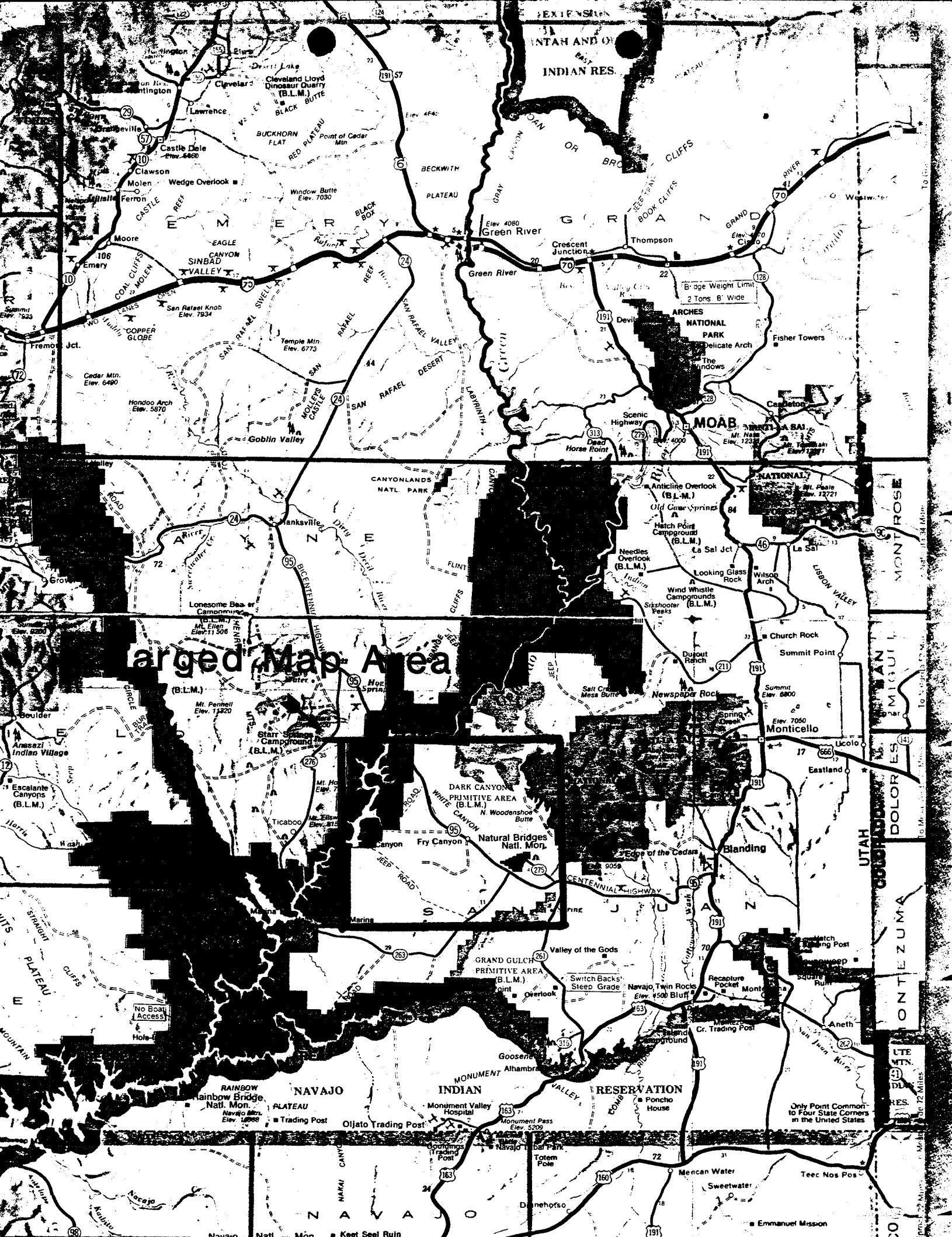
**DIVISION OF OIL  
 GAS & MINING**

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. Signed Walter H. Shaffer Title Dist. Drilling Supervisor Date 8-5-87  
 (This space for Federal or State office use)

Permit No. \_\_\_\_\_ Approval Date \_\_\_\_\_

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
 Conditions of approval, if any:





Staging Area

Well Location

## 10-Point Drilling Program

### Mancos Mesa Unit #1

- 1) Geologic name of the surface formation: Navajo
- 2) Estimated tops of geological markers:

<u>Formation</u>	<u>Depth</u>
Kayenta	350'
Wingate	575'
Chinle	990'
Moenkopi	1,995'
*White Rim	2,140'
Organ Rock	2,225'
Total Depth	2,230'

- 3) Anticipated depths to encounter water, oil, gas or other mineral-bearing formations:

<u>Substances</u>	<u>Depth</u>
Oil Gas, Water	2,140'

- 4) Casing Program:

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft</u>	<u>Grade</u>	<u>Threads</u>	<u>Cementing Depth</u>
7 7/8"	6"	20#	K55	FL4S	100'
5 7/8"	4 1/2"	13.5#	K55	FL4S	1800'-2000'

- 5) Operators minimum specifications for pressure control equipment are explained on the attached schematic diagram. After running surface casing and prior to drilling out, the BOP and other pressure equipment will be installed and mechanically operated. The BOP will be checked daily for mechanical operations only and will be noted on the IADC Daily Drilling Report.

- 6) Mud Program:

<u>Interval</u>	<u>Type Mud</u>	<u>Wt #/gal</u>	<u>Viscosity</u>	<u>WL CC/30M</u>
0-100'	Air		Air	
0-1800'-2000'	Air		Air/Mist	Until water is encountered
1800'-TD	LSND	8.6-8.8#	Mud weight	as required to control wellbore

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7) Auxiliary Equipment:

Kelly cock; hand held H<sub>2</sub>S monitors; coring equipment and handling/transport boxes; operator geologists on location...

8) Testing Program:

None

Logging Program:

Core Gamma Log on Recovered Core

Coring Program:

A continuous core will be taken from 1800' - TD

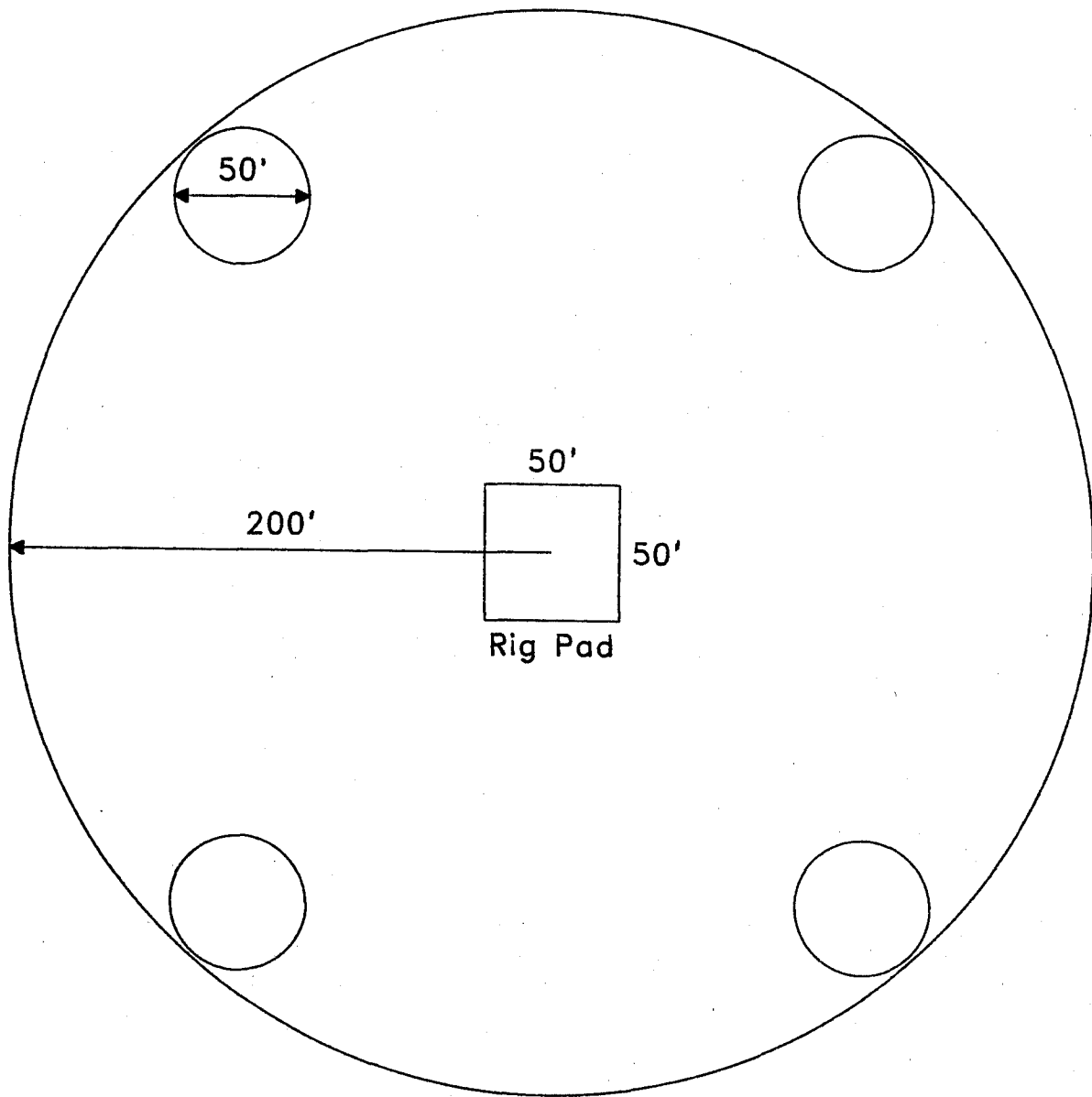
9) No abnormal pressures or temperatures are anticipated.

10) Anticipated starting date will be when approved and the duration of drilling operations will be approximately 45 days.

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# Mancos Mesa #1 Surface Location Layout

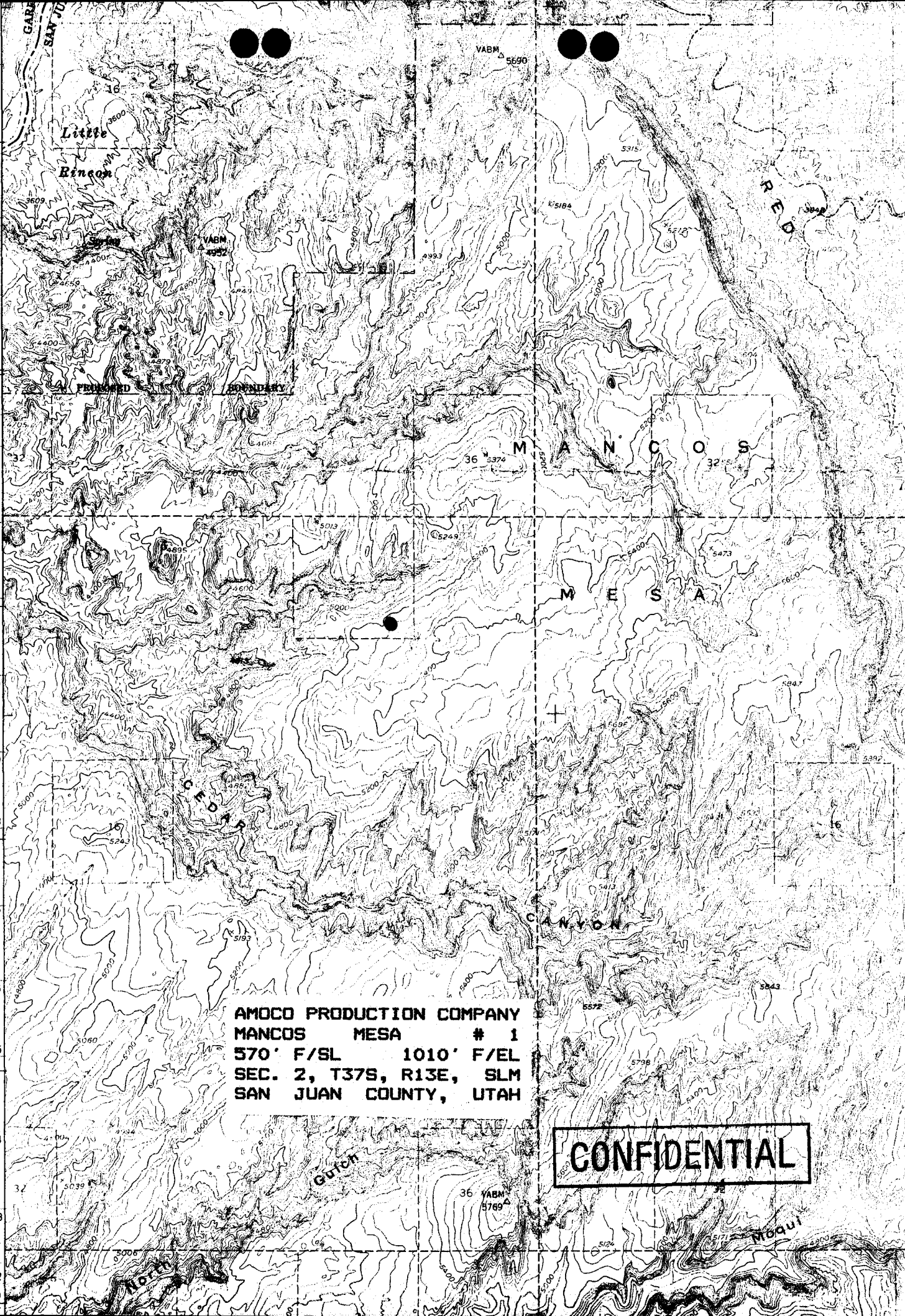
200' Radius Circle centered around a point  
570' FSL, 1010' FEL Section 2, T37S, R13E



Helicopter pads will be positioned 150' from wellbore to  
provide access based on wind direction.

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40  
168  
167  
166  
165  
163  
T. 36 S  
T. 37 S  
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T. 37 S  
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FEET



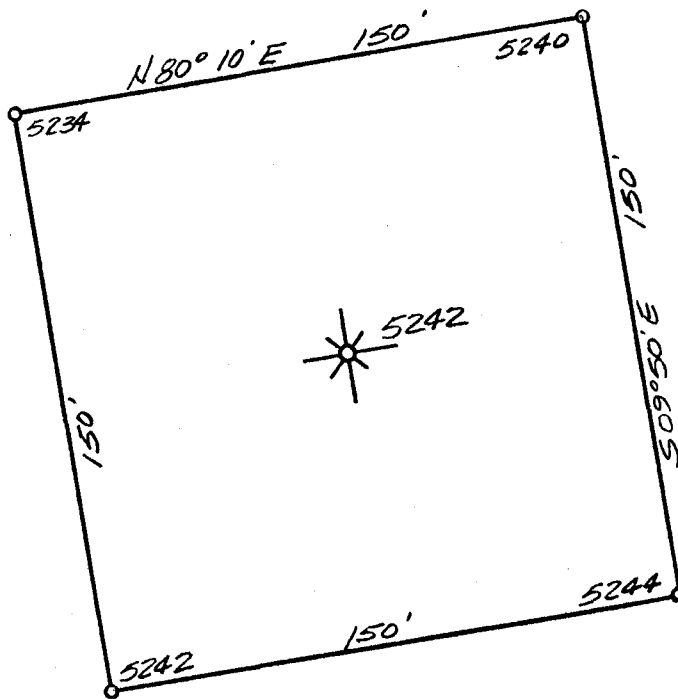
AMOCO PRODUCTION COMPANY  
MANCOS MESA # 1  
570' F/SL 1010' F/EL  
SEC. 2, T37S, R13E, SLM  
SAN JUAN COUNTY, UTAH

**CONFIDENTIAL**



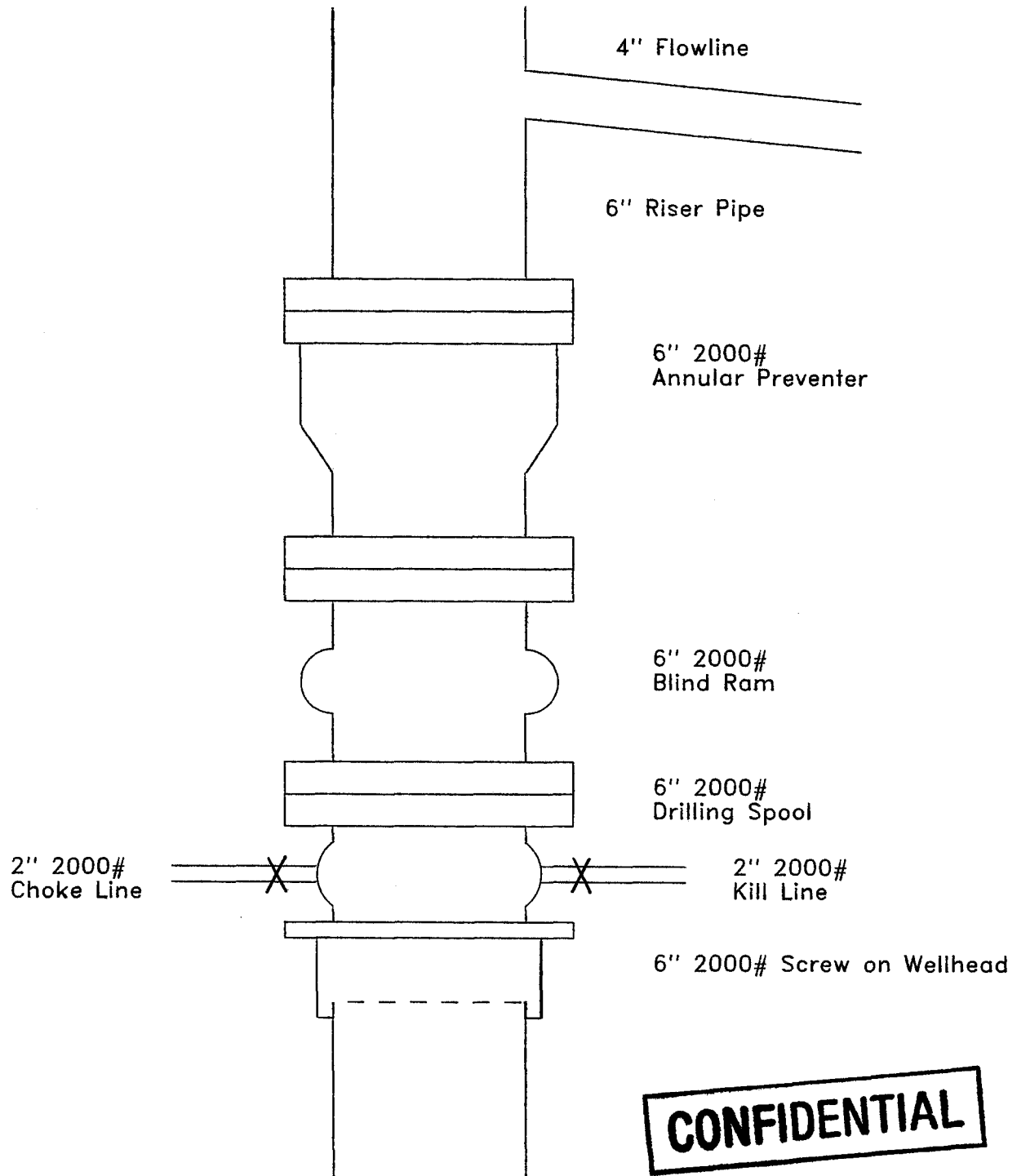
AMOCO PRODUCTION COMPANY  
MANCOS MESA # 1  
570' F/SL 1010' F/EL  
SEC. 2, T37S, R13E, SLM  
SAN JUAN COUNTY, UTAH

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SCALE: 1" = 500'  
DATE SURVEYED: JULY 24, 1987

# Mancos Mesa #1 BOP Diagram



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## INTRODUCTION

On July 24, 1987, a cultural resource inventory was performed by Abajo Archaeology, Bluff, Utah for the proposed AMOCO Production Company's Mancos Mesa Unit No. 1 and Staging Area, southwestern San Juan County, Utah. The archaeological survey was conducted by William E. Davis at the request of Mr. Frank Nielsen, Petroleum Landman, AMOCO Production Company, Denver, Colorado. AMOCO's plan of operation's for the proposed exploratory drilling activities calls for minimal surface impact with the utilization of a portable drill rig which will be flown in from the staging area. Both land parcels are situated on public land administered by the State of Utah.

The objectives of the cultural resource inventory were to locate and document any cultural resources occurring within the proposed well location and staging area, and to recommend appropriate procedures for the management of such resources. The accomplishment of these objectives fulfills compliance requirements set forth in the Antiquities Act of 1906, the Historic Preservation Act of 1966, Executive Order No. 11593 of 1971, the Archaeological and Historic Conservation Act of 1980, the Utah State Antiquities Act of 1973, and the Archaeological Resources Protection Act of 1979.

The fieldwork was conducted under the authority of Utah State Antiquities Project Permit (Survey) No. U-87-AS-443s, issued to Abajo Archaeology, Bluff, Utah. A search of the prehistoric and historic archaeological site files was conducted on July 27, 1987 by Preservation Archaeologist Liz Manion at the Division of State History, Salt Lake City. The purpose of these reviews was to determine the presence of known cultural resources in the two project areas. The results of these file searches revealed that no previously recorded cultural resources occur in the two impact areas and that previous archaeological research has been limited to a Class II cultural resource sample inventory performed in the White Canyon area for the Bureau of Land Management by P-III Associates of Salt Lake City (Tipps 1984). The purpose of this work was to collect information for an Environmental Impact Statement on tar sands development and to develop site locational models to aid in the management of cultural resources in the project area. The sample inventory of seven 160-acre quadrats in the White Canyon tract resulted in the documentation of 20 prehistoric sites, most of which were lithic scatters that were used for a short period of time (Tipps 1984:4).

## ENVIRONMENTAL SETTING

Both of the proposed impact areas are located in the Canyonlands section of the Colorado Plateau province, on or near large upwarp features (Hunt 1974). Geologic strata exposed throughout the region are primarily the Permian through Cretaceous Formations of water- and wind-deposited sandstones, limestones, shales and mudstones. The proposed helicopter staging area is situated on a slightly deflated alluvial bench overlooking the deeply entrenched, vertical walled White Canyon 1000 feet (305 meters) to the immediate north and the cliffs of "Tables of the Sun" 1500 feet (457 meters) to the south. The staging area occurs at an elevation of 5065 feet (1544 meters) above sea level. Surface Quaternary sediments consist of thin alluvial silts, eolian sands and tabular sandstone gravels. Average depth to the underlying Cutler Formation sandstone bedrock is 10 centimeters.

The proposed well location is situated approximately 14 air miles south-southwest of the staging area and occurs near the western rim of Mancos Mesa at an elevation of 5200 feet (1585 meters) above sea level. Navajo Sandstone is evident on over 90% of the surface of the well location. The remainder of the ground surface is composed of thin eolian sediments and occasional lag cobbles.

The vegetation in both impact areas primarily consists of the Blackbrush Community of the Shadscale Zone, with occasional isolated pinyon-juniper stands. Other observed shrubs include rabbitbrush, saltbush, Mormon tea, and snakeweed.

## PROJECT LOCATION AND SURVEY METHODOLOGY

The proposed AMOCO Production Company's Staging Area is located in the NW 1/4 of the NW 1/4 of the SE 1/4 of Section 12, Township 36 South, Range 15 East (UGSG Natural Bridges Quadrangle, 15', 1952) (Figure 1). The staging area occurs approximately 56 feet (20 meters) south of Highway U-95 and encompasses an area measuring roughly 200 feet (60 meters) north-south by 400 feet (120 meters) east-west, totaling a little under two acres.

The proposed Mancos Mesa Unit No. 1 well location is situated approximately 570 feet from the south section line and 1010 feet from the east section line in the NW 1/4 of the SE 1/4 of the SE 1/4 of Section 2, Township

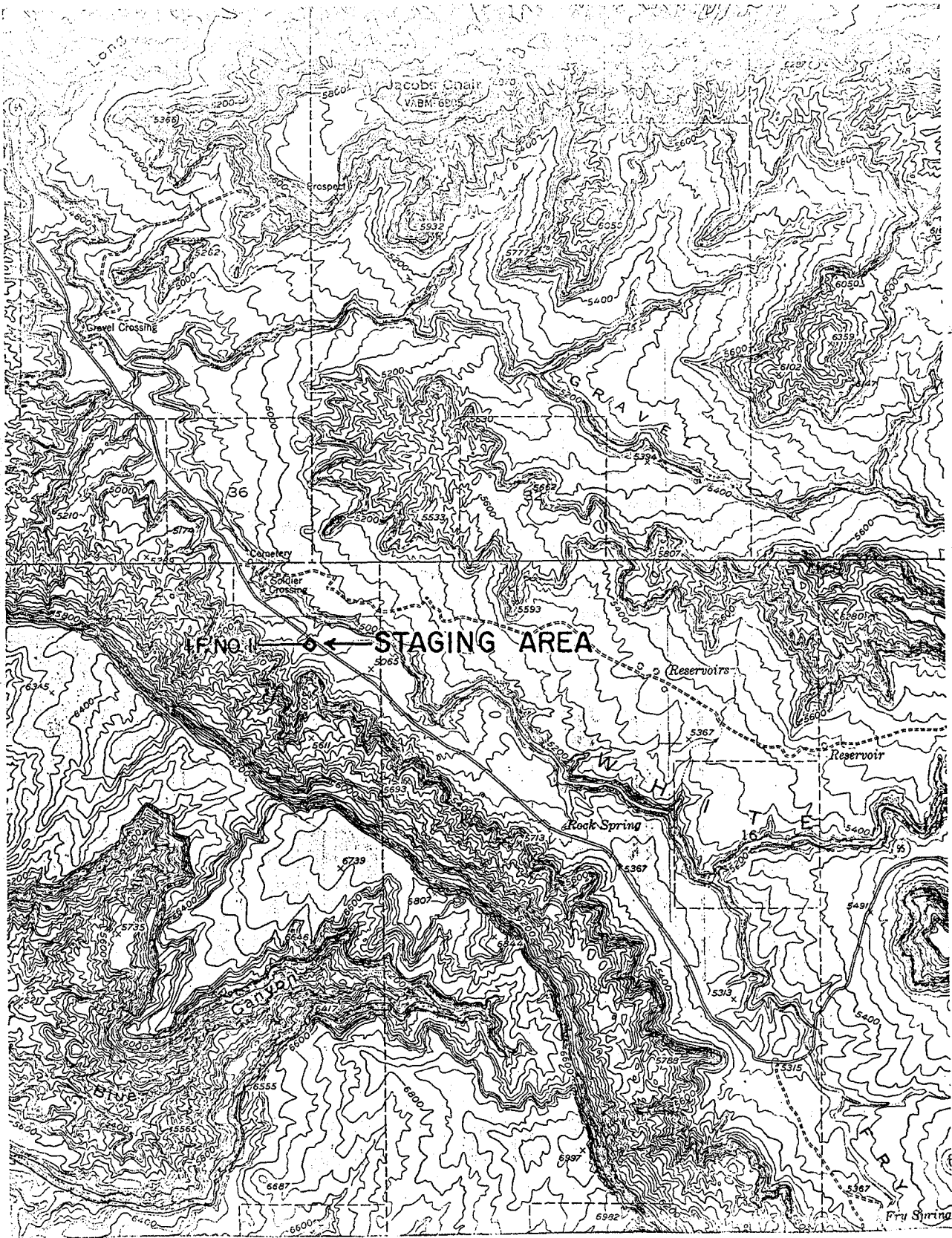


FIGURE 1. Amoco Production Company's Proposed Mancos Mesa Unit No. 1 Staging Area, NW of the NW of the SE Quarter of Section 36 South, Range 15 East, San Juan County, Utah (USGS Natural Bridges Quadrangle, 15', 1952).

37 South, Range 13 East (USGS Mancos Mesa Quadrangle, 15', 1952) (Figure 2). The well location encompasses an area measuring 260 feet (80 meters) north-south by 230 feet (70 meters) east-west, totaling 1.4 acres.

The cultural resource inventory was performed by the author walking parallel transects spaced no more than 10 meters apart. Both the staging area and well location had been previously staked and marked with surveyor's ribbon prior to the cultural resource inspection. In addition, AMOCO Petroleum Landman, Frank Nielsen, along with Carol Revelt, Utah State Division of Oil and Gas, accompanied the author during the on-site visitation.

### RESULTS

The cultural resource inventory resulted in the location and documentation of one isolated artifact at the proposed staging area (See Figure 1) and two isolated artifacts at the proposed well location (See Figure 2). No archaeological sites were found. The following describes the three isolated artifacts:

Isolated Find No. 1  
(Figure 3)

One-hand unifacial discoidal mano manufactured out of red Cutler Formation sandstone. The mano is complete and shaped from a piece of sandstone by pecking and moderate grinding along its margins. Use-wear extends well over the leading and trailing edges of the grinding surface indicating usage on a concave (basin) grinding slab. The artifact measures 106 mm. in length, 93 mm. in width and is 54 mm. thick.

Isolated Find No. 2

One exhausted multi-directional white chalcedony core.

Isolated Find No. 3

One yellowish brown bifacial thinning flake.

### SUMMARY AND RECOMMENDATIONS

The cultural resource inventory of the proposed Amoco Production Company's proposed helicopter staging area and Mancos Mesa Unit No. 1 well location resulted

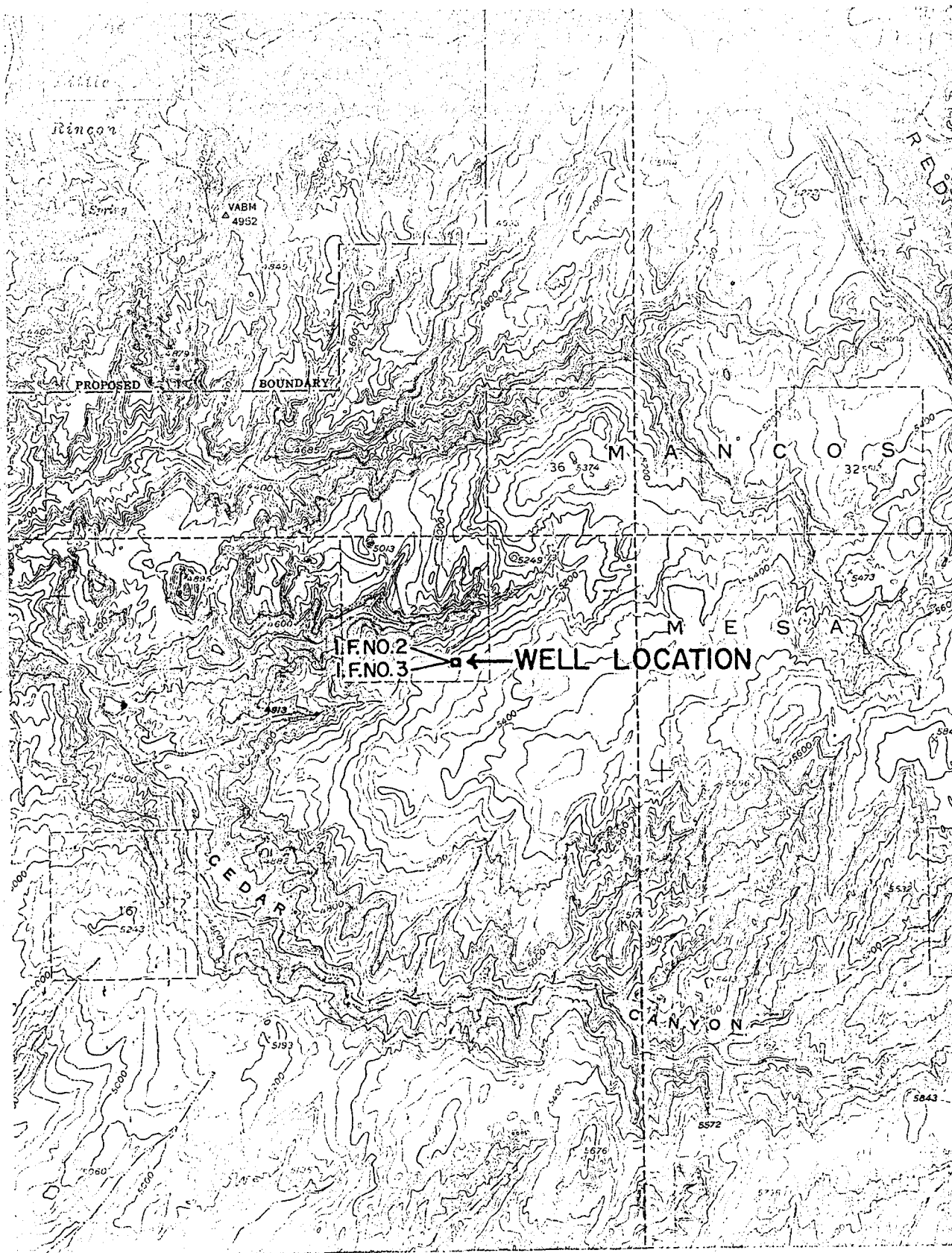
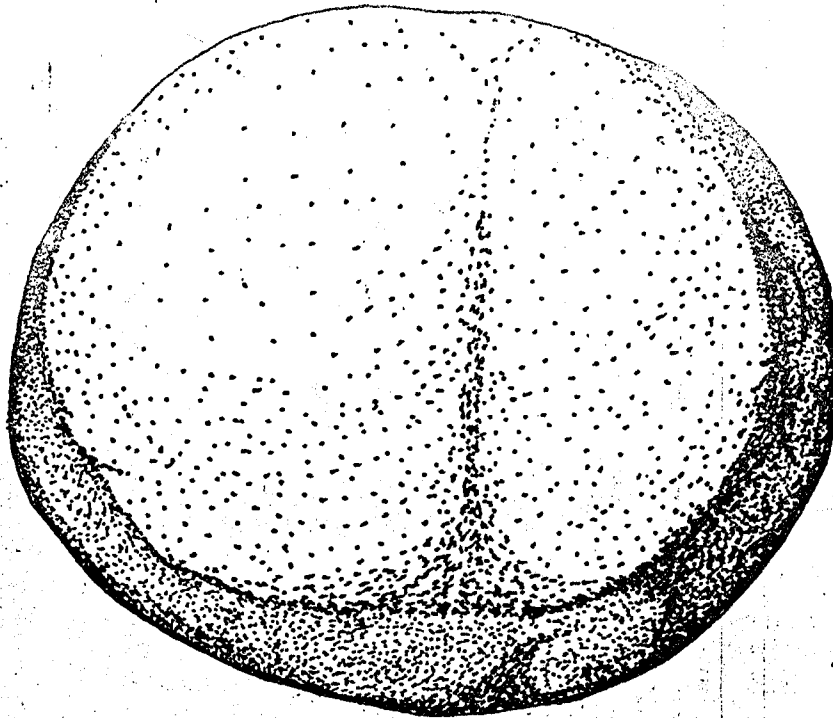
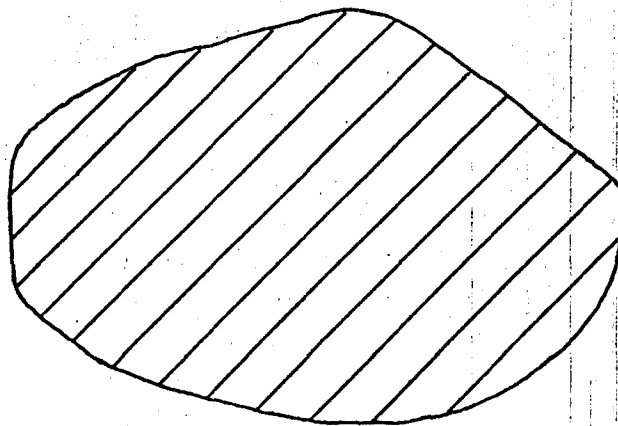


FIGURE 2. Amoco Production Company's Proposed Mancos Mesa Unit No. 1 Well Location; 570 Feet from the South Section Line and 1010 Feet from the East Section Line in the Nw of the SE of the SE Quarter of Section 2, Township 37 South, Range 13 East, San Juan County, Utah (USGS Mancos Mesa Quadrangle, 15', 1952).

## ISOLATED ARTIFACT NO. 1



## ONE-HAND UNIFACIAL DISCOIDAL MANO



## CROSS - SECTION

ACTUAL SIZE

FIGURE 3. Isolated Artifact No. 1, One-hand Unifacial Discoidal Mano.



in the location and documentation of three isolated artifacts. The documentation and interpretation of these artifacts in this report are felt to constitute adequate recovery of cultural resource data, and that further archaeological research at these two localities would yield no new significant information pertaining to regional prehistory.

It is recommended that archaeological clearance be granted to AMOCO Production Company for the proposed Mancos Mesa Unit No. 1 well location and staging area as described in this report.

#### REFERENCES CITED

- Hunt, C. B.  
1974 Natural Regions of the United States and Canada.  
W. H. Freeman and Co., San Francisco.
- Tipps, Betsy L.  
1984 The Tar Sands Project: Cultural Resource Inventory and Predictive Modeling in Central and Southern Utah. P-III Associates, Salt Lake City.

DRILLING LOCATION ASSESSMENT  
State of Utah  
Division of Oil, Gas & Mining

OPERATOR: Amoco Production Company WELL NAME: Mancos Mesa Unit #1  
QTR/QTR: SESE SECTION: 2 TWP: 37S RANGE: 13E  
COUNTY: San Juan FIELD: Wildcat 570 F S L 1010 F E L  
SFC OWNER: State Lands LEASE #: ML 35456  
SPACING: Well is within Mancos Mesa Federal Unit--well must be greater than 200' from  
Unit Boundary.  
INSPECTOR: Carol Revelt DATE & TIME: July 23, 1987 @ 9 a.m.  
PARTICIPANTS: Joe Scurlock, Foreman, and Frank Nielsen, Landman,--both from Amoco;  
Ed Bonner, State Lands; and Bill Davis, Abajo Archaeology.

REGIONAL SETTING/TOPOGRAPHY: Inner Canyonlands--extensive sandstone mesa cut by ephemeral  
streams which drain into the Colorado River at Lake Powell. Stream channels tend to  
be very steep walled.

LAND USE

CURRENT SURFACE USE: Domestic and wildlife grazing, recreation, wilderness study area.

PROPOSED SURFACE DISTURBANCE: Location will be 150' x 150'. Rig pad will be 50' x 50'.  
No excavation will be necessary--will only need to move dirt around. All equipment  
and personnel will be brought in using helicopters. Four-50' diameter helicopter  
pads will be located within 200' radius of wellbore.

AFFECTED FLOODPLAINS AND/OR WETLANDS: Lake Powell is 7-8 miles away via stream drainage.

FLORA/FAUNA: Yucca, rabbit brush, sagebrush, prickly pear and barrel cactus, junipers,  
pinons, mormon tea. Evidence of deer, rabbits, and cows.

ENVIRONMENTAL PARAMETERS

GEOLOGY

SOIL TYPE AND CHARACTERISTICS: Reddish brown fine grained aeolian sand derived from  
Navajo formation. Soil is interspersed between outcrops of Navajo Sandstone.

SURFACE FORMATION & CHARACTERISTICS: Navajo Formation--reddish tan, fine grained,  
well sorted, crossbedded sandstone. Formation is gently dipping to the SE.

EROSION/SEDIMENTATION/STABILITY: Staked hole is in a very stable location on an outcrop of Navajo Sandstone on Mancos Mesa.

SUBSURFACE GEOLOGY

OBJECTIVE(S)/DEPTH(S): Permian White Rim at 2140'.

ABNORMAL PRESSURES - HIGH AND LOW: Reservoir is underpressured. No other abnormal pressures anticipated.

CULTURAL RESOURCES/ARCHAEOLOGY: Survey completed by Bill Davis of Abajo Archaeology. Both location and Staging area pass.

WATER RESOURCES: At its closest distance, Lake Powell is located 4 miles from the proposed location. There is an ephemeral stream bed located about 2000' North of the location. Location is 7-8 miles from Lake Powell via the stream drainage. Streams show dendritic drainage pattern.

RESERVE PIT

CHARACTERISTICS: Will not dig a pit--will use a flat tank and helicopter water in for drilling purposes if necessary.

LINING: Not Applicable.

MUD PROGRAM: Plan to air drill the hole to 1800' and core from 1800' to TD. If encounter water during drilling will use mud weight appropriate for controlling the wellbore.

DRILLING WATER SUPPLY: If need water for drilling will obtain it from a public access area in Hite, Utah, or from the Frye Canyon General Store.

OTHER OBSERVATIONS: Staging area located in Sec. 16, T. 35S, R. 15E. Will have a trailer located at staging area for the work crew. Crew will consist of 15 to 20 hands. Drilling will take approx. 45 days--will start upon obtaining approval to drill. Title Hole status. Pad elevation = 5242'. Staging area is under State Lease ML-35615. Amoco Engineer, John Greener, said he spoke Park Ranger Andy Ferguson who said that AMOCO wouldn't need a water permit--DOGM should check with DOWR in Price to verify. Amoco will present this info to RDCC on 8-11-87.

STIPULATIONS FOR APD APPROVAL: AMOCO will allow State Representatives access to the location at any time. Verify if water permit is necessary.

ATTACHMENTS: See APD for laydown diagrams and location plats.

## STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING**CONFIDENTIAL**

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. Type of Well

Oil  
Well ☒Gas  
Well ☐

Other

Single  
Zone ☐Multiple  
Zone ☐

2. Name of Operator

AMOCO PRODUCTION COMPANY

3. Address of Operator

P. O. BOX 829, EVANSTON, WYOMING 82930

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface

570' FSL &amp; 1010' FEL Section 2

At proposed prod. zone

14. Distance in miles and direction from nearest town or post office\*

68 miles North from Section 2 to Hanksville, Utah

15. Distance from proposed\*

location to nearest  
property or lease line, ft.  
(Also to nearest drlg. line, if any)

570'

16. No. of acres in lease

17. No. of acres assigned  
to this well18. Distance from proposed location\*  
to nearest well, drilling, completed,  
or applied for, on this lease, ft.

19. Proposed depth

2230'

20. Rotary or cable tools

Rotary-Air

21. Elevations (Show whether DF, RT, GR, etc.)

5242' GR

22. Approx. date work will start\*

Approval of A.P.D.

23.

## PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
7 7/8"	6"	20#	100'	50 sx
5 7/8"	4 1/2"	13.5#	1800'-2000'	50 sx

AMOCO PRODUCTION COMPANY PROPOSES TO DRILL AND  
EVALUATE THE WHITE RIM FORMATION.**RECEIVED****AUG 7 1987****DIVISION OF OIL  
GAS & MINING****CONFIDENTIAL**

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed

*Walter H. Shaffer*

Title Dist. Drilling Supervisor

Date 8-5-87

(This space for Federal or State office use)

Permit No.

43-037-31337

Approval Date

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

Approved by

Title

Conditions of approval, if any:

DATE: 8-26-87

BY: *John R. B...*

\*See Instructions On Reverse Side

WELL SPACING: 1615-4-3

Operator AMOCO PRODUCTION COMPANY

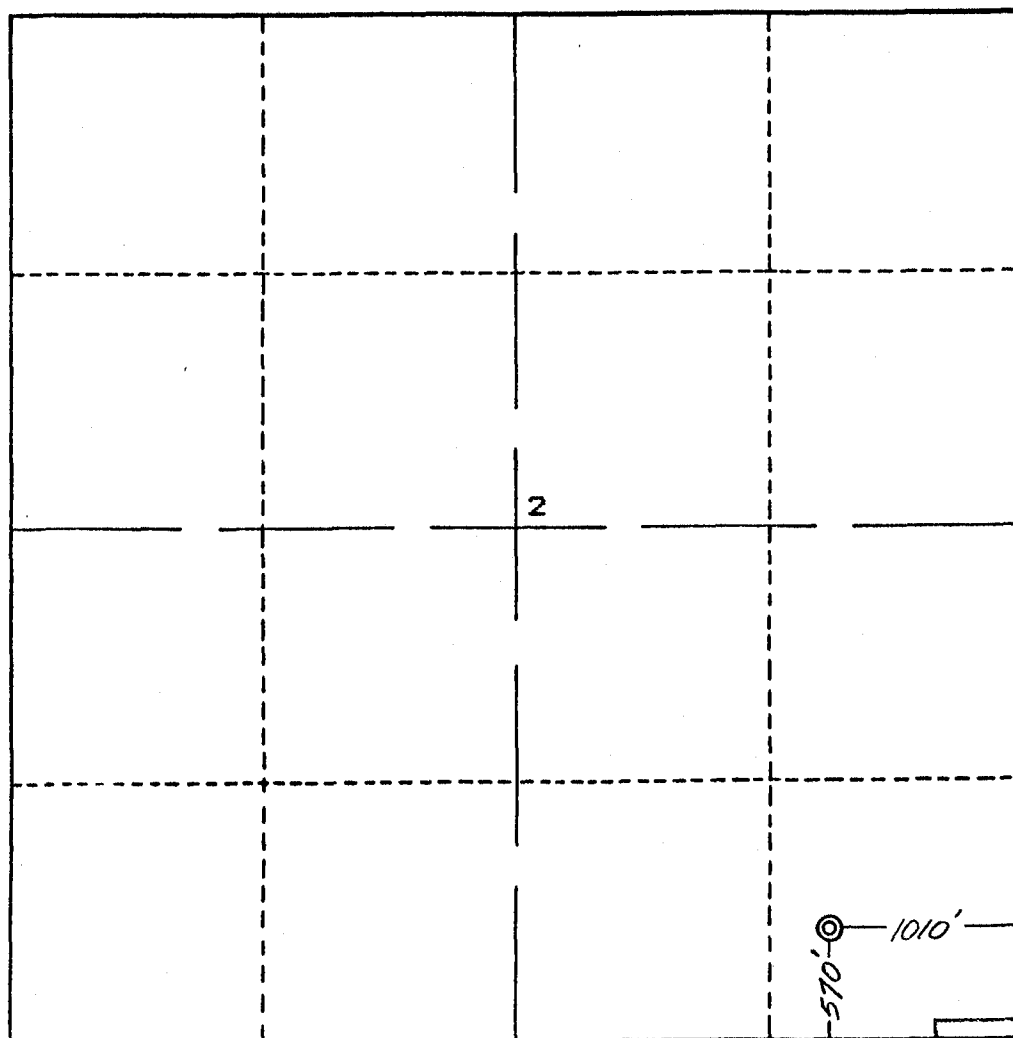
Lease MANCOS MESA Well No. # 1

Section 2, Township 37 SOUTH, Range 13 EAST

County SAN JUAN COUNTY, UTAH

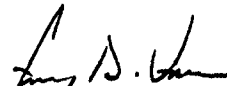
Footage Location of Well: 570 feet from the SOUTH line and  
1010 feet from the EAST line

Ground Level Elevation 5242



Scale: 1" = 1000'

I hereby certify that the well location shown on this plat was prepared from field notes of an actual survey by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.



Gary D. Vann  
Professional L.S. #16162  
State of Colorado

July 24, 1987  
Date Surveyed

New Mexico Reg. #7016



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PERIOD 82714  
EXPIRED  
ON 9-3-89

OPERATOR Amoco Production Co. DATE 8-11-87

WELL NAME Manero Mesa Unit #1

SEC SESE 2 T 37S R 13E COUNTY San Juan

43-637-31337  
API NUMBER

State  
TYPE OF LEASE

CHECK OFF:

☒ PLAT

☒ BOND

☒ NEAREST  
WELL

☒ LEASE

☒ FIELD

☒ POTASH OR  
OIL SHALE

PROCESSING COMMENTS:

1. RDCC Mtg. on 8-25-87 after 15-day  
comment period resulted in no comments  
from committee members.
2. Need water permit

APPROVAL LETTER:

SPACING: ☒ R615-2-3 Manero Mesa ☐ R615-3-2  
UNIT

☐ CAUSE NO. & DATE ☐ R615-3-3

STIPULATIONS: 1. Water

2. The operator shall take necessary precautions to  
prevent any influent to or effluent from the  
well location and drill pad.

3. Because of the separation of staging area and  
well site, the operator shall allow Division  
representatives access to the well location by the  
~~what~~ <sup>positive</sup> method ~~is~~ used for transporting operating  
personnel.

0218T

Resources Development Coordinating Committee  
August 11, 1987

Amoco Production Company  
1670 Broadway  
Denver, CO 80202  
(303)830-4040

---

**David R. Brown	Environmental Affairs
Tom E. Dill	Geologist
Frank B. Nielsen	Land
Kent A. Sauvageua	Drilling Engineer
Ruth B. Johnson	Legal
Ted B. Neptune	Public and Government Affairs

---

Amoco Production Company  
33 Independence Circle  
Evanston, WY 82930  
(307) 789-1700

---

Karen Gollmer	Permit Administrator
John Greener	Drilling Engineer

\*\* Please contact with any questions.

SUMMARY OF AMOCO PRODUCTION COMPANY'S PRESENTATION  
TO THE RESOURCES DEVELOPMENT COORDINATING COMMITTEE

August 11, 1987

I. State Permits Requested

Amoco Production Company ("Amoco") is seeking approval from the Board of Oil, Gas and Mining to drill an oil and gas exploratory well on lands leased by the State of Utah in San Juan County. Amoco is also seeking a special use permit from the State Land Board to use other state lands as a staging area for helicopter access to the drill site. These two permits, while issued by different state agencies, are interrelated.

II. Land Situation

The drillsite lease is a state lease covering four sections of land surrounded by federal land managed by the Bureau of Land Management. The federal land, most of which is also under lease to Amoco, is currently a BLM wilderness study area ("WSA"). In 1983, Amoco formed the Mancos Mesa Unit which includes numerous federal leases and two state leases, both of which are surrounded by the WSA. Amoco then sought permission to drill a well on the federal leases, which was denied by the BLM because of the ongoing wilderness study. The federal leases in the Unit are now suspended.

III. Geology

In an environmental impact statement concerning the designation of wilderness in Utah, the BLM stated that the Mancos Mesa area has low potential for oil and gas. Amoco strongly disagrees and has an oil prospect underlying most of the WSA, including all four sections of state land in the Unit. The Mancos Mesa prospect was developed using surface mapping and regional geology. The prospect is a combined stratigraphic and structural trap in the White Rim Sandstone. This excellent reservoir rock contains significant reserves of tar where exposed at the surface.

The exact size of the trap, or the extent to which it is filled by oil, will not be known until the well is drilled. Reservoir pressure is subnormal and cannot force fluids to the surface. No gas or hydrogen sulfide is anticipated.

IV. Exploration Proposal

Amoco's proposal uses an environmentally sound exploration method to drill the well. Although Amoco believes it has the right to build a road to gain access to explore



state leases surrounded by federal lands (Utah v. Andrus, 486 F.Supp. 999 [D.Utah 1979]), Amoco is proposing in this specific situation to fly the drilling equipment in to the location of the well by helicopter. The proposed staging area is just off State Highway 95 in T35S, R15E, Section 16. The proposed staging area is relatively flat terrain composed of gravel and rock. The land has apparently been used for a variety of activities in the past.

The well will be drilled in T37S, R13E, Section 2, which is approximately 14 miles from the staging area, to a depth of 2,230 feet. Drilling will only take about 20 days. Personnel involved in this operation (a maximum of 15) will be housed in temporary quarters at the staging area.

#### V. Public Benefits from Amoco's Proposal

There are several public benefits from Amoco's proposal. If oil in commercial quantities is discovered, the state, county and local communities benefit from economic development of their land (including royalties and taxes); the federal government likewise benefits from royalties (of which the state receives one-half). Oil, the most likely resource to be found in Mancos Mesa, is being imported in increasing quantities from the Middle East. The United States is currently importing nearly 40% of the U.S. oil requirements, and could easily be importing 50% by 1990 and 60% by the year 2000. Amoco believes it is in the national interest to continue to search for oil. Finally, if Amoco is not permitted to explore for oil, Congress will be forced to make a wilderness vs. nonwilderness decision for these lands without definitive geological data. Before state or federal lands are effectively locked up forever to exploration, Amoco believes it is in the public interest to fully evaluate hydrocarbon potential.



Amoco Production Company

August 13, 1987

Utah Division of  
Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180

**RECEIVED**

**AUG 17 1987**

**DIVISION OF OIL  
GAS & MINING**

Re: Mancos Mesa Unit #1  
Section 2, T37S, R13E,  
San Juan County, Utah

**Addendum to APD - Pressure Control Equipment**

The proposed program for the above referenced well in the event a pressurized aquifer is penetrated would be to shut the well in and perform standard well control operations. It should be noted that no abnormal pressures are anticipated and sufficient BOP equipment will be installed.

To accommodate any excess liquids from a flowing aquifer, a holding tank will be placed on location. The holding tank will be in addition to the proposed blow-out prevention equipment and the typical methods of stopping a liquid influx through mud column hydrostatic pressures.

Should there be further questions please contact Karen Gollmer at (307) 783-2234.

Sincerely,

Walter G. Shaffer  
Dist Drilling Supervisor

/kg

Mail to: A-95 Coordinator, State Clearinghouse, 124 State Capitol, SLC, Utah 84114, 533-4971

## 1. Applicant

DIVISION OF OIL, GAS & MINING  
3 TRIAD CENTER, SUITE 350  
SALT LAKE CITY, UTAH 84180-1203

## 2. State Application Identifier Number

## 3. Approximate date project will start

August 24, 1987

## 4. Areawide clearinghouse(s) receiving copy of STATE ACTION: (to be sent out by applicant)

Southeastern Utah Association of Local Governments

5. Type of action: ☐ Lease ☒ Permit ☐ License ☐ Land Acquisition  
☐ Land Sale ☐ Land Exchange ☐ Other: \_\_\_\_\_

## 6. Title of proposed action: Application of Permit to Drill

## 7. Description:

Amoco Production Company intends to drill a wildcat well on state mineral lease ML-35456 in San Juan County, Utah. The Division of Oil, Gas and Mining is reviewing the application for issues of oil and gas resource conservation. This action is presented to RDCC for consideration and feedback on other resource issues affecting state interests.

## 8. Land affected (Site location map required) (Indicate county)

SE SE Section 2, Township 37 South, Range 13 East, San Juan County, Utah

## 9. Has the city/county been contacted regarding necessary zoning &amp; building permits? Unknown

## 10. Possible significant impacts likely to occur:

Amoco is proposing a drilling program to minimize surface impacts including the use of helicopter portable equipment. The well is located within a federal wilderness study area; however, no permanent effect on the land will occur unless production is established.

## 11. Name and phone number of district representative from your agency near project site, if applicable. Mr. William Hutchinson 1-259-8151

## 12. For further information, contact:

Phone: John R. Baza - 538-5340

## 13. Signature and title of authorized official

Date: 8-7-87

*John R. Baza*  
Petroleum Engineer

7/81



Amoco Production Company

August 21, 1987

Utah Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180

Re: Mancos Mesa Unit #1, located in the  
SE/4, SE/4, Sec. 2, T37S, R13E  
San Juan County, Utah

RECEIVED

AUG 24 1987

DIVISION OF OIL  
GAS & MINING

Dear John:

Enclosed are the two corrected pages to be substituted  
in the archeological study done on the above referenced  
well and submitted with our APD. This should help to  
clarify that report.

If you have further questions or concerns, please contact  
me at (307) 783-2234.

Sincerely,

Karen Gollmer  
Amoco Production Company

Encl.

## ENVIRONMENTAL SETTING

Both of the proposed impact areas are located in the Canyonlands section of the Colorado Plateau province, on or near large upwarp features (Hunt 1974). Geologic strata exposed throughout the region are primarily the Permian through Cretaceous Formations of water- and wind-deposited sandstones, limestones, shales and mudstones. The proposed helicopter staging area is situated on a slightly deflated alluvial bench overlooking the deeply entrenched, vertical walled White Canyon 1000 feet (305 meters) to the immediate north and the cliffs of "Tables of the Sun" 1500 feet (457 meters) to the south. The staging area occurs at an elevation of 5065 feet (1544 meters) above sea level. Surface Quaternary sediments consist of thin alluvial silts, eolian sands and tabular sandstone gravels. Average depth to the underlying Cutler Formation sandstone bedrock is 10 centimeters.

The proposed well location is situated approximately 14 air miles south-southwest of the staging area and occurs near the western rim of Mancos Mesa at an elevation of 5200 feet (1585 meters) above sea level. Navajo Sandstone is evident on over 90% of the surface of the well location. The remainder of the ground surface is composed of thin eolian sediments and occasional lag cobbles.

The vegetation in both impact areas primarily consists of the Blackbrush Community of the Shadscale Zone, with occasional isolated pinyon-juniper stands. Other observed shrubs include rabbitbrush, saltbush, Mormon tea, and snakeweed.

## PROJECT LOCATION AND SURVEY METHODOLOGY

The proposed AMOCO Production Company's Staging Area is located in the NE 1/4 of the NW 1/4 of the NW 1/4 of Section 16, Township 35 South, Range 15 East, San Juan County, Utah (USGS Mancos Mesa Quadrangle 15', 1952) (Figure 1). The staging area occurs approximately 56 feet (20 meters) south of Highway U-95 and encompasses an area measuring roughly 200 feet (60 meters) north-south by 400 feet (120 meters) east-west, totaling a little under two acres.

The proposed Mancos Mesa Unit No. 1 well location is situated approximately 570 feet from the south section line and 1010 feet from the east section line in the NW 1/4 of the SE 1/4 of the SE 1/4 of Section 2, Township

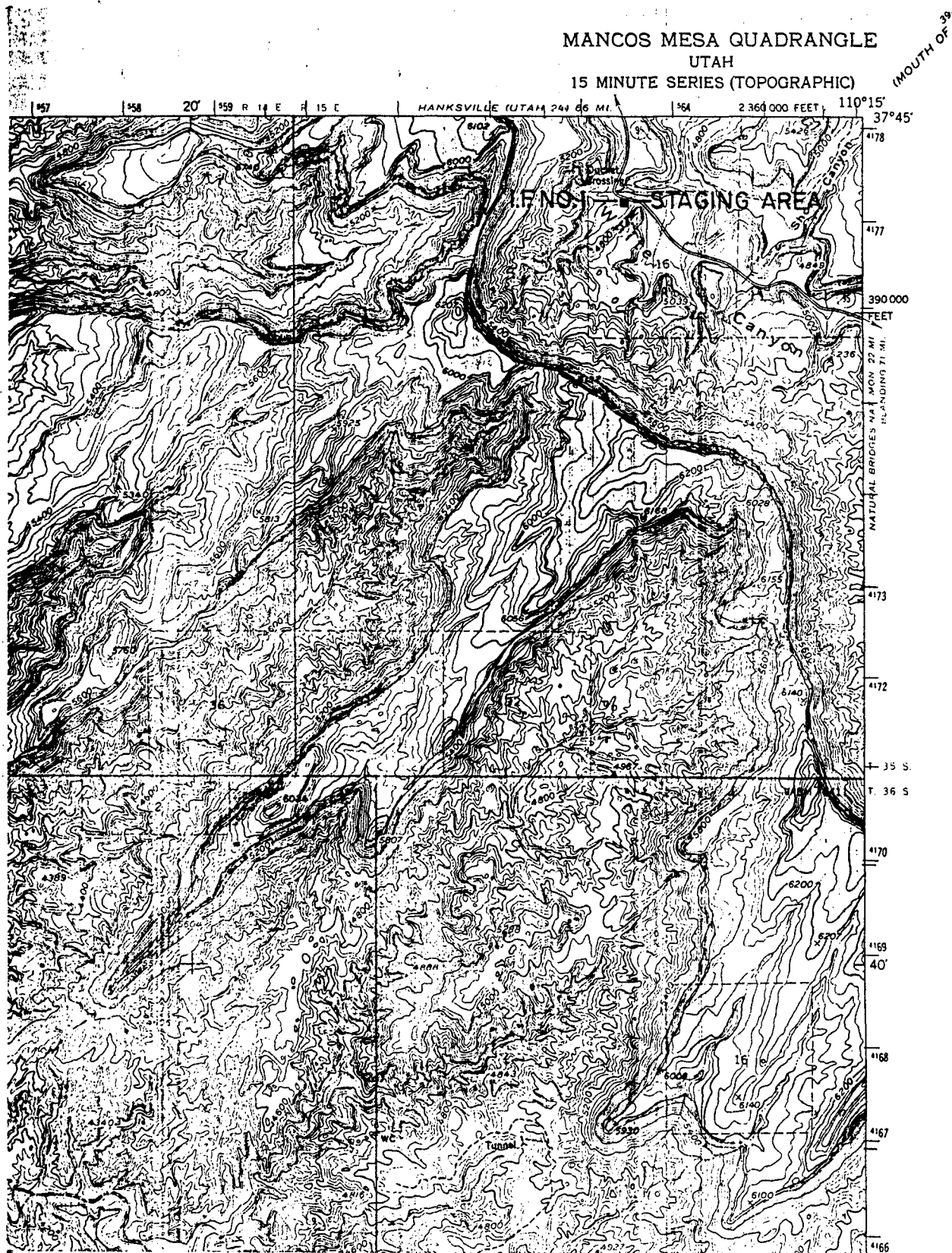


FIGURE 1. AMOCO Production Company's Mancos Mesa Unit No. 1 Staging Area, NE of the NW of the NW Quarter of Section 16, Township 35 South, Range 15 East, San Juan County, Utah (USGS Mancos Mesa Quadrangle, 15', 1952).



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

555 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

August 26, 1987

Amoco Production Company  
P. O. Box 829  
Evanston, Wyoming 82930

Gentlemen:

Re: Mancos Mesa Unit #1 - SE SE Sec. 2, T. 37S, R. 13E  
570' FSL, 1010' FEL - San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule R615-2-3, Oil and Gas Conservation General Rules, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.
2. The operator shall take necessary precautions to prevent any influent to or effluent from the well location and drill pad.
3. Because of the separation of staging area and well site, the operator shall allow Division representatives access to the well location by the method routinely used for transporting operating personnel.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Summittal of an Entity Action Form to the Division within five working days of the time that the well is spudded or a change in operations or interests necessitates a change in entity status.
3. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.

4. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.
5. Compliance with the requirements of Rule R615-3-22, Gas Flaring or Venting, Oil and Gas Conservation General Rules.
6. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at the drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 533-6163.
7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31337.

Sincerely,



R. J. Firth  
Associate Director, Oil & Gas

as  
Enclosures  
cc: State Lands & Forestry  
Branch of Fluid Minerals  
D. R. Nielson  
8159T





116 State Capitol Building  
Salt Lake City, UT 84114  
Telephone 801-533-5245

## office of planning and budget

Norman H. Bangerter, Governor Dale C. Hatch, C.P.A., J.D., Director Michael E. Christensen, Ph.D., Deputy Director

August 28, 1987

John R. Baza  
Division of Oil, Gas and Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Mr. Baza:

Due to administrative delay comments of the Divisions of Environmental Health and Wildlife Resources on Amoco's proposed wildcat well on Mancos Mesa (UT 87-807-010) arrived at the Planning Office after the comment deadline had expired. I understand that the well has already been approved by the Division of Oil, Gas, and Mining. While technically the opportunity for comment has passed, it is my hope that these concerns may still be addressed by Amoco.

### COMMENTS OF THE DIVISION OF WILDLIFE RESOURCES

While the Division anticipates only minimal impacts from surface disturbance to bighorn sheep, we are concerned about the line of flight from the staging area to the well site. Experience has shown that low level flights (under 1,000 ft.) cause substantial disturbance to bighorn sheep. Additionally, the predicted time frame for activity coincides with the bighorn sheep hunt (September 12 through October 11). Helicopter flights in this particular corridor may create serious conflicts with both sheep and hunters.

We recommend the staging area be relocated to the east off of Highway 276 within T36S, R11E, on any of the state land sections. This will place the flight corridor away from the more sensitive area. We also recommend the helicopter attain 1,000 feet in elevation above Mancos Mesa before departing to or from the staging area. This will reduce overflight disturbance to bighorn sheep.

### COMMENTS OF THE DIVISION OF ENVIRONMENTAL HEALTH

The geologic formations exposed at the surface underlying the

Page Two  
Mr. John Baza

proposed drill pad locality comprise the principal underground source of drinking water (USDW). Steps need to be taken to totally contain drilling fluids and produced water, i.e., tanks or artificially lined ponds.

Thank you for your consideration on this matter.

Sincerely,



Michael E. Christensen  
State Planning Coordinator

MEC/jd

RECEIVED

SEP 3 1987

DIVISION OF OIL  
GAS & MINING



NORMAN H. BANGERTER  
GOVERNOR

DC  
ED

STATE OF UTAH  
DEPARTMENT OF COMMUNITY AND  
ECONOMIC DEVELOPMENT

31 August 1987

Division of  
State History  
(UTAH STATE HISTORICAL SOCIETY)

MAX J. EVANS, DIRECTOR  
300 RIO GRANDE  
SALT LAKE CITY, UTAH 84101-1182  
TELEPHONE 801/533-5755

Chairperson  
Resource Development Coordinating Committee  
State Planning Office  
118 State Capitol  
Salt Lake City, Utah 84114

RE: Amoco Production Company, Wildcat Well, Mancos Mesa

In Reply Please Refer to Case No. K270

Dear Chairperson:

The staff of the Utah State Historic Preservation last week received and reviewed a copy of the cultural resource inventory performed by Abajo Archaeology for the above referenced project. Although the cultural resource survey did identify three isolated finds or artifacts, it appears that no sites were found that would be potentially eligible for the National Register. The use of the described land for the well pad location and the staging area should not impact any significant historic or cultural resources.

The above is provided on request as outlined by 36 CFR 800 or Utah Code, Title 63-18-37. If you have questions or need additional assistance, please contact Charles Shepherd at (801) 533-7039.

Sincerely,

A. Kent Powell  
Deputy State Historic  
Preservation Officer

CMS:jrc:K270/4496V

cc: John Baza, Division of Oil, Gas & Mining, 3 Triad Center, Suite 350, Salt  
Lake City, Utah 84180-1203

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SEP 4 1987  
DIVISION OF OIL  
GAS & MINING



NORMAN H. BANGERTER  
GOVERNOR



STATE OF UTAH  
DEPARTMENT OF COMMUNITY AND  
ECONOMIC DEVELOPMENT

Division of  
State History  
(UTAH STATE HISTORICAL SOCIETY)

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TELEPHONE 801/533-5755

31 August 1987

Chairperson  
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118 State Capitol  
Salt Lake City, Utah 84114

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Sincerely,

A. Kent Powell  
Deputy State Historic  
Preservation Officer

Sept. 3, 1987

CMS:jrc:K270/4496V

cc: John Baza, Divi  
Lake City, Utah

Dear John,

A further comment on AMOCO's lease.

Let me know if there are any problems,

Jan D.

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SEP 4 1987  
DIVISION OF OIL  
GAS & MINING



NORMAN H. BANGERTER  
GOVERNOR



STATE OF UTAH  
DEPARTMENT OF COMMUNITY AND  
ECONOMIC DEVELOPMENT

Division of  
State History  
(UTAH STATE HISTORICAL SOCIETY)

MAX J. EVANS, DIRECTOR  
300 RIO GRANDE  
SALT LAKE CITY, UTAH 84101-1182  
TELEPHONE 801/533-5755

31 August 1987

Chairperson  
Resource Development Coordinating Committee  
State Planning Office  
118 State Capitol  
Salt Lake City, Utah 84114

RE: Amoco Production Company, Wildcat Well, Mancos Mesa

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Sincerely,

A. Kent Powell  
Deputy State Historic  
Preservation Officer

CMS:jrc:K270/4496V

cc: John Baza, Division of Oil, Gas & Mining, 3 Triad Center, Suite 350, Salt  
Lake City, Utah 84180-1203



092101

Amoco Production Company

September 9, 1987

Utah Division of  
Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180

RECEIVED

SEP 11 1987

DIVISION OF OIL  
GAS & MINING

Attn: John Baza

Re: Mancos Mesa Unit #1 Well

Dear Mr. Baza:

In reply to your request that Amoco Production Company address the concerns of the Division of Wildlife Resources pertaining to the flight pattern from the staging area to the wellsite for our Mancos Mesa Unit #1 well. We have been in contact with Mike Scwin in regards to the disturbance of Bighorn Sheep by the helicopter mobilization and support.

A request was made by the Wildlife Resources to maintain a flight elevation of 1000 ft above ground level to minimize surface noise and disturbance. After reviewing the area topography with Mr. Scwin, an agreement was reached that a constant flight elevation across the canyonlands between the camp and wellsite would be sufficient.

If there are any questions concerning the above referenced matter, please contact Jon Greener at (307) 783-2384.

Thank you,

*Walter G. Shaffer*  
Walter G. Shaffer  
Dist Drilling Supv

/kg

100101

**CONFIDENTIAL**

DIVISION OF OIL, GAS AND MINING

SPODDING INFORMATION

API #43-037-31337

NAME OF COMPANY: AMOCO PRODUCTION COMPANYWELL NAME: MANCOS MESA UNIT #1SECTION SE SE 2 TOWNSHIP 37S RANGE 13E COUNTY SAN JUANDRILLING CONTRACTOR LONGYEARRIG # 3349SPUDDED: DATE 9-24-87TIME 1:00 AMHow RotaryDRILLING WILL COMMENCE REPORTED BY Karen GollmerTELEPHONE # DATE 9-30-87 SIGNED AS

**STATE OF UTAH**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL, GAS, AND MINING**

SUBMIT IN TRIPLICATE\*  
 (Other instructions on  
 reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
 Use "APPLICATION FOR PERMIT—" for such proposals.)

<b>1. OIL WELL</b> <input checked="" type="checkbox"/> <b>GAS WELL</b> <input type="checkbox"/> <b>OTHER</b> <input type="checkbox"/> <b>2. NAME OF OPERATOR</b> AMOCO PRODUCTION COMPANY <b>3. ADDRESS OF OPERATOR</b> P. O. BOX, EVANSTON, WYOMING 82930 <b>4. LOCATION OF WELL</b> (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 570' FSL & 1010' FEL <b>14. PERMIT NO.</b> 43-037-31337 <b>15. ELEVATIONS</b> (Show whether DF, RT, GR, etc.) 5242' GR		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> ML-35456 <b>6. IF INDIAN, ALLOTTEE OR TRUST NAME</b> 100106 <b>7. UNIT AGREEMENT NAME</b> Mancos Mesa Unit <b>8. FARM OR LEASE NAME</b> Mancos Mesa Unit <b>9. WELL NO.</b> #1 <b>10. FIELD AND POOL, OR WILDCAT</b> Wildcat <b>11. SEC., T., R., N., OR S.E. AND SURVEY OR AREA</b> Sec. 2, T37S, R13E <b>12. COUNTY OR PARISH</b> <b>13. STATE</b>
--	--	---

**16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) Spud <input type="checkbox"/>	(Other) <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/> (NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

**17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS** (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The Mancos Mesa Unit #1 well was spud on 09-24-87 at 0100 hrs.

RECEIVED

SEP 30 1987

DIVISION OF OIL  
 GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED Louis T. Lopez

TITLE Administrative Supervisor

DATE 9-28-87

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



# SOUTHEASTERN UTAH ASSOCIATION OF LOCAL GOVERNMENTS

HAROLD JACOBS  
Chairman

WILLIAM D. HOWELL  
Executive Director

P. O. Drawer A1 • Price, Utah 84501 • Telephone 637-5444

## AREAWIDE CLEARINGHOUSE A-95 REVIEW

NOI \_\_\_ Preapp \_\_\_ App \_\_\_ State Plan \_\_\_ State Action X Subdivision \_\_\_ (ASP # 8-811-12)

Other (indicate) \_\_\_\_\_ SAI Number UT

Applicant (Address, Phone Number):

Federal Funds:

Requested: \_\_\_\_\_

Division of Oil, Gas and Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

RECEIVED

SEP 13 1987

Title:

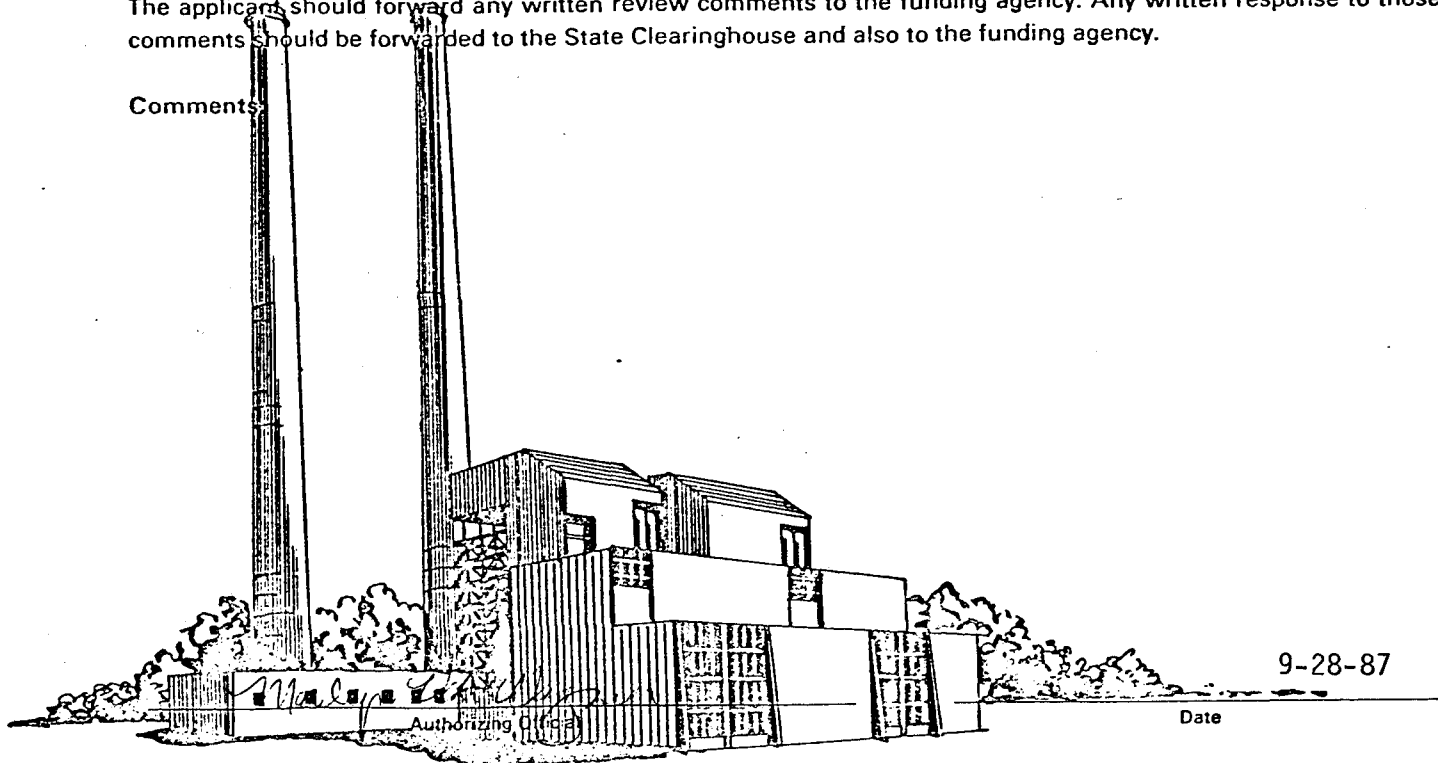
AMOCO PRODUCTION COMPANY - PERMIT TO DRILL

DIVISION OF OIL  
GAS & MINING

- ☒ No comment
- ☐ See comments below
- ☐ No action taken because of insufficient information
- ☐ Please send your formal application to us for review. Your attendance is requested ☐

The applicant should forward any written review comments to the funding agency. Any written response to those comments should be forwarded to the State Clearinghouse and also to the funding agency.

Comments:



REGIONAL CLEARINGHOUSE



# United States Department of the Interior

NATIONAL PARK SERVICE  
Glen Canyon National Recreation Area  
Box 1507  
Page, Arizona 86040

IN REPLY REFER TO:  
L3031

September 4, 1987

Mr. Walter Shaffer  
Amaco Production Company  
P. O. Box 829  
Evanston, Wyoming 82930

Dear Mr. Shaffer:

This letter authorizes your company to utilize up to 50,000 gallons of water from the National Park Service water system at Hite.

As discussed on the telephone today, we are issuing a one time Bill for Collection for \$100 to cover water production and administrative costs.

Please have your field crew coordinate their water pickup with our maintenance staff at Hite to insure that there's not too much draw down on our limited storage capacity at Hite.

Sincerely,

Irvin L. Mortenson  
Assistance Superintendent

cc:  
Budget Analyst  
Uplake Maintenance Foreman

RECEIVED  
OCT 5 1987

DIVISION OF OIL  
GAS & MINING

**STATE OF UTAH**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL, GAS, AND MINING**

SUBMIT **TRIPPLICATE\***  
 (Other instructions on  
 reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
 Use APPLICATION FOR PERMIT—" for such proposals.)

<b>1. OIL WELL</b> <input checked="" type="checkbox"/> <b>GAS WELL</b> <input type="checkbox"/> <b>OTHER</b> <input type="checkbox"/> <b>2. NAME OF OPERATOR</b> AMOCO PRODUCTION COMPANY <b>3. ADDRESS OF OPERATOR</b> P. O. BOX 829, EVANSTON, WYOMING 82930 <b>4. LOCATION OF WELL</b> (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  570' FSL & 1010' FEL  <b>14. PERMIT NO.</b> 43-037-31337		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> ML-35456 <b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b> 100724 <b>7. UNIT AGREEMENT NAME</b> Mancos Mesa Unit <b>8. FARM OR LEASE NAME</b> Mancos Mesa Unit <b>9. WELL NO.</b> #1 <b>10. FIELD AND POOL, OR WILDCAT</b> Wildcat <b>11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA</b> Sec. 2, T37S, R13E <b>12. COUNTY OR PARISH</b> <b>13. STATE</b> San Juan Utah	
<b>15. ELEVATIONS</b> (Show whether DF, ST, GR, etc.) 5242' GR			

**16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Report of operations</u> <input type="checkbox"/>	
(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

**17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS** (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Date: 9-30-87

Spud: 9-24-87

Drl. Contractor Longyear 3349

Depth: 871 ft

Bit: 5.500 in

Drilling Ahead

**RECEIVED**  
**OCT 5 1987**  
 DIVISION OF OIL,  
 GAS & MINING

**18. I hereby certify that the foregoing is true and correct**

SIGNED Devin L. Foye

TITLE Administrative Supervisor

DATE 9-30-87

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

**STATE OF UTAH**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL, GAS, AND MINING**

**SUBMIT TRIPLICATE\***  
 (Other instructions on  
 reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
 Use "APPLICATION FOR PERMIT—" for such proposals.)

<b>1. OIL WELL</b> <input checked="" type="checkbox"/> <b>GAS WELL</b> <input type="checkbox"/> <b>OTHER</b> <input type="checkbox"/>		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> ML-35456	
<b>2. NAME OF OPERATOR</b> AMOCO PRODUCTION COMPANY		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b> 100725	
<b>3. ADDRESS OF OPERATOR</b> P. O. BOX 829, EVANSTON, WYOMING 82930		<b>7. UNIT AGREEMENT NAME</b> Mancos Mesa Unit	
<b>4. LOCATION OF WELL</b> (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  570' FSL & 1010' FEL		<b>8. FARM OR LEASE NAME</b> Mancos Mesa Unit	
<b>14. PERMIT NO.</b> 43-037-31337		<b>9. WELL NO.</b> #1	
<b>15. ELEVATIONS</b> (Show whether DF, RT, GR, etc.) 5242' GR		<b>10. FIELD AND POOL, OR WILDCAT</b> Wildcat	
		<b>11. SEC., T., R., M., OR B.L. AND SURVEY OR AREA</b> Sec. 2, T37S, R13E	
		<b>12. COUNTY OR PARISH</b> San Juan	<b>13. STATE</b> Utah

**16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

**NOTICE OF INTENTION TO:**

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

**SUBSEQUENT REPORT OF:**

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

**17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS** (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The Drilling Contractor for the above referenced well is  
 Longyear 3349

The source of water for said well is Hite Marina.  
 A copy of the letter of authorization from National Park Service  
 Glen Canyon National Recreation Area is attached for your files.

**RECEIVED**

**OCT 5 1987**

DIVISION OF OIL  
 GAS AND MINING

**18. I hereby certify that the foregoing is true and correct**

**SIGNED**

*Paul F. Rozzic*

**TITLE** Administrative Supervisor

**DATE** 10-1-87

(This space for Federal or State office use)

**APPROVED BY**

**TITLE**

**DATE**

**CONDITIONS OF APPROVAL, IF ANY:**

# FILING FOR WATER IN THE STATE OF UTAH

*file*  
Rec. by \_\_\_\_\_  
Fee Rec. \_\_\_\_\_  
Receipt # \_\_\_\_\_  
Microfilmed \_\_\_\_\_  
Roll # \_\_\_\_\_

**RECEIVED**  
OCT 26 1987

## APPLICATION TO APPROPRIATE WATER

DIVISION OF  
OIL, GAS & MINING

030714

Application of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.

### TEMPORARY

WATER USER CLAIM NO. 99 - 100

APPLICATION NO. T62916

1. PRIORITY OF RIGHT: September 8, 1987

FILING DATE: September 8, 1987

2. OWNER INFORMATION

Name: Amoco Production Company

Interest: 100 %

Address: P.O. Box 829, Evanston, WY 82930

The land is not owned by the applicant(s), see explanatory.

3. QUANTITY OF WATER: 1.0 acre feet (Ac. Ft.)

4. SOURCE: Colorado River/Lake Powell DRAINAGE: Colorado River

POINT(S) OF DIVERSION:

COUNTY: San Juan

(1) N. 1503 feet, W. 1015 feet, from the S $\frac{1}{4}$  Corner of Section 29,  
Township 33 S, Range 14 E, SLB&M

COMMON DESCRIPTION: Hite Marina

5. NATURE AND PERIOD OF USE

Oil Exploration From September 15 to November 15.

6. PURPOSE AND EXTENT OF USE

Oil Exploratio: Man camp and drilling operations.

7. PLACE OF USE

The water is used in all or parts of each of the following legal subdivisions.

TOWN	RANGE	SEC	North East Quarter				North West Quarter				South West Quarter				South East Quarter			
			NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$
35	S	15 E 16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
✓ 37	S	13 E 02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

All locations in Salt Lake Base and Meridian

EXPLANATORY

The required water supply will be purchased from the drinking water source at the Hite Marina, in conjunction with the Glen Canyon National Recreation Area. This potable water is drawn and tested from the Glen Canyon Reservoir. Verbal approval has been obtained from both parties and written confirmation will be forthcoming.

The water will be used to support a man camp and drilling operations.

*Mencor  
Mica #1*  
43-037-31337 PA  
**Appropriate**

\*\*\*\*\*

The applicant hereby acknowledges he/they are a citizen(s) of the  
United States or intends to become such a citizen.

\*\*\*\*\*

The quantity of water sought to be appropriated is limited to that which  
can be beneficially used for the purpose herein described.

\*\*\*\*\*

The undersigned hereby acknowledges that even though he/they may have been assisted in  
the preparation of the above-numbered application through the courtesy of the employees  
of the Division of Water Rights, all responsibility for the accuracy of the information  
contained therein, at the time of filing, rests with the applicant(s).

---

Signature of Applicant

STATE ENGINEER'S ENDORSEMENT

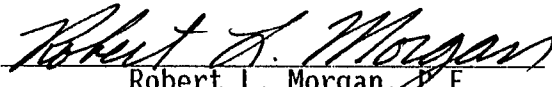
WATER RIGHT NUMBER: 99 - 100

APPLICATION NO. T62916

1. September 8, 1987      Application received by MP.
  2. October 15, 1987      Application designated for APPROVAL by MP and KLJ.
  3. Comments:
- 
- 

Conditions:

This application is hereby APPROVED, dated October 23, 1987, subject to prior rights and this application will expire on October 23, 1988.

  
Robert L. Morgan, P.E.  
State Engineer

P: A notification

Mancos Mesa #1A:

11-2-87

JRB

Csg: 4 1/2" @ 1329'

110619

- No flowing water.
- Set pipe in Chinle
- Drilled to Moenkopi, lost fish and couldn't get back down.

TD = 1971'

Sunk @ 1562'

- ① Set a plug on top of bridge. (100')
- ② Drop a bentonite plug (bentonite pellets)
- ③ Bridge off ~ 50' from surface  
Set a cement plug back to surface
- ④ Set a flat plate as marker

Orl.

43-037-31337

Mancos Mesa #1: Sec 2 37S13E San Juan

TD = 1206

Pipe set to 1162' (3 1/2") Palled  
portions of 3 1/2" and 4 1/2" pipe

- ① Similar procedure as #1 well

- Will start plugging both wells tonight or tomorrow depending on approval from main office



**STATE OF UTAH**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL, GAS, AND MINING**

PRINT IN TRIPLICATE  
 other instructions on  
 reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
 Use "APPLICATION FOR PERMIT" for such proposals.)

1. <b>OIL WELL</b> <input checked="" type="checkbox"/> <b>GAS WELL</b> <input type="checkbox"/> <b>OTHER</b> <input type="checkbox"/>		5. <b>LEASE DESIGNATION AND SERIAL NO.</b> ML-35456 <i>Dr 1</i>	
2. <b>NAME OF OPERATOR</b> AMOCO PRODUCTION COMPANY		6. <b>IF INDIAN, ALLOTTEE OR TRIBE NAME</b>  110908	
3. <b>ADDRESS OF OPERATOR</b> P. O. BOX 829, EVANSTON, WYOMING 82930		7. <b>UNIT AGREEMENT NAME</b> Mancos Mesa Unit	
4. <b>LOCATION OF WELL</b> (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 570' FSL & 1010' FEL		8. <b>FAIRM OR LEASE NAME</b> Mancos Mesa Unit	
14. <b>PERMIT NO.</b> 43-037-31337		9. <b>WELL NO.</b> #1	
15. <b>ELEVATIONS</b> (Show whether DF, RT, GR, etc.) 5242' GR		10. <b>FIELD AND POOL, OR WILDCAT</b> Wildcat	
		11. <b>SEC., T., R., M., OR BLK. AND SURVEY OR AREA</b> Sec. 2, T37S, R13E	
		12. <b>COUNTY OR PARISH</b> San Juan	13. <b>STATE</b> Utah

**Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

**NOTICE OF INTENTION TO:**

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

**SUBSEQUENT REPORT OF:**

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. **DESCRIBE PROPOSED OR COMPLETED OPERATIONS** (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

P & A

The above referenced well was plugged and abandoned on 11-3-87 at a total depth of 1206'. The following materials were used to isolate the wellbore:

15 sacks of cement  
 6 sacks of quick seal  
 6 sacks of hole plug

A dryhole marker plate was welded on the surface casing and buried beneath ground level.

18. I hereby certify that the foregoing is true and correct

SIGNED *Louis T. Loyze*

TITLE Administrative Supervisor

DATE 11-4-87

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

**APPROVED BY THE STATE  
 OF UTAH DIVISION OF  
 OIL, GAS, AND MINING**

DATE: 11-6-87

\*See Instructions on Reverse Side

SIGNED *John R. Bay*

Division of Oil, Gas and Mining  
PHONE CONVERSATION DOCUMENTATION FORM

*Confidential*

Route original/copy to:

☒ Well File Mancos Men

☐ Suspense  
(Return Date) \_\_\_\_\_  
(To - Initials) \_\_\_\_\_

☐ Other \_\_\_\_\_

(Location) Sec 2 Twp 37N Rng 13E

(API No.) 43-037-31337

1. Date of Phone Call: 2/11/89 Time: 11:30

2. DOGM Employee (name) Orlene S. (Initiated Call ☒  
Talked to:

Name Karen Gellmer (Initiated Call ☐ - Phone No. (307) 783-2234  
of (Company/Organization) Umco

3. Topic of Conversation: WCR

4. Highlights of Conversation: She will send one.

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> Other _____				5. LEASE DESIGNATION AND SERIAL NO. ML-35456	
2. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other _____				6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. NAME OF OPERATOR AMOCO PRODUCTION COMPANY				7. UNIT AGREEMENT NAME Mancos Mesa Unit	
4. ADDRESS OF OPERATOR P. O. BOX 829, EVANSTON, WY 82930				8. FARM OR LEASE NAME Mancos Mesa Unit	
5. LOCATION OF WELL (Report location clearly and in accordance with any State required maps)* At surface 570' FSL & 1010' FEL At top prod. interval reported below At total depth				9. WELL NO. #1	
<div style="font-size: 2em; font-weight: bold; transform: rotate(-5deg); opacity: 0.5;">RECEIVED</div> <div style="font-weight: bold;">FEB 16 1989</div> <div style="margin-top: 10px;">DIVISION OF OIL, GAS &amp; MINING</div>				10. FIELD AND POOL, OR WILDCAT Wildcat	
				11. SEC., T., R., M., OR BLOCK AND QUARTER OR AREA Sec. 2, T37S, R13E	
12. COUNTY OR PARISH San Juan		13. STATE UT			
14. PERMIT NO. 43-043-31337	DATE ISSUED		15. DATE SPUDDED 9-24-87		
16. DATE T.D. REACHED 10-11-87		17. DATE COMPL. (Ready to prod.)		18. ELEVATIONS (DF, RES, RT, OR, ETC.)*	
19. TOTAL DEPTH, MD & TVD 1206'		20. PLUG, SACK T.D., MD & TVD		21. IF MULTIPLE COMPL., HOW MANY*	
22. INTERVALS DRILLED BY		ROTARY TOOLS		CABLE TOOLS	
23. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* Hole was lost, well was plugged & rig skidded 14' N60E from 1st hole. P&A'd w/15' sx cmt, 6 sx quickseal & 6 sx hole plug cmt to sfc. 11-2-87					24. WAS DIRECTIONAL SURVEY MADE
25. TYPE ELECTRIC AND OTHER LOGS RUN					26. WAS WELL CORED
27. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
6 5/8"	32#	121'	7.875	15 SX	
4 1/2"	11.3#	850'	5.500	18 SX	
3.5 HQ	Drill Rod	1162'	3.875	7 SX	760
28. LINER RECORD					
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	
29. TUBING RECORD					
SIZE	DEPTH SET (MD)	PACKER SET (MD)			
30. PERFORATION RECORD (Interval, size and number)					
31. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.					
DEPTH INTERVAL (MD)			AMOUNT AND KIND OF MATERIAL USED		
32. PRODUCTION					
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)			WELL STATUS (Producing or shut-in) P & A
DATE OF TEST	HOURS TESTED	CORRECTION SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.
FLOW, TUBING PRESS.		CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.
33. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)		TEST WITNESSED BY			
34. LIST OF ATTACHMENTS					
35. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records					
SIGNED <u>Walter L. Shaffer</u>		TITLE <u>Drilling Supervisor</u>		DATE <u>2-13-89</u>	

\* (See Instructions and Spaces for Additional Data on Reverse Side)